

1.7 pg. 70: 2-ZEVEN, 27, 30, 38, 42E
47, 55, 83-85

2. NO 4. yes 6. NO 8. NO 10. yes 12. yes

14. NO 16. yes; $f^{-1}(x) = \frac{4}{x+1} \quad x \neq -1$

18. NO 20. yes; $f^{-1}(x) = \frac{-6}{x-1} \quad x \neq 1$

22. yes $g^{-1}(x) = -3 + \frac{49}{x^2} \quad x > 0$

$$27 \quad f[g(x)] = \frac{-\cancel{18-x} + 3}{6} = \frac{-18 + 6x}{6} + 3 = -3 + x + 3 = \boxed{x}$$

$$30. \quad f(g(x)) = \frac{(\sqrt{4x-32})^2}{4} + 8 = \frac{4x-32}{4} + 8 = x - 8 + 8 = \boxed{x}$$

38. See screen

42, 47 NO 55. (sample) ~~BOX~~ $D: [5, \infty)$

83. y-intercept at (0, 6)

84. from the line of symmetry one direction
to pass HLT

85. NO, $y=n$ does not pass HLT